



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

27280 7590 03/19/2009

THE GOODYEAR TIRE & RUBBER COMPANY  
INTELLECTUAL PROPERTY DEPARTMENT 823  
1144 EAST MARKET STREET  
AKRON, OH 44316-0001

EXAMINER

PETERSON, KENNETH E

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 03/19/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/650,348

08/28/2003

Daniel Ray Downing

DN2001124D01

6674

TITLE OF INVENTION: METHOD FOR CUTTING ELASTOMERIC MATERIALS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$1370	\$1510	06/19/2009

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27280 7590 03/19/2009

**THE GOODYEAR TIRE & RUBBER COMPANY  
INTELLECTUAL PROPERTY DEPARTMENT 823  
1144 EAST MARKET STREET  
AKRON, OH 44316-0001**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,348	08/28/2003	Daniel Ray Downing	DN2001124D01	6674

TITLE OF INVENTION: METHOD FOR CUTTING ELASTOMERIC MATERIALS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$1370	\$1510	06/19/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
PETERSON, KENNETH E	3724	083-013000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,348	08/28/2003	Daniel Ray Downing	DN2001124D01	6674
27280	7590	03/19/2009	EXAMINER	
THE GOODYEAR TIRE & RUBBER COMPANY INTELLECTUAL PROPERTY DEPARTMENT 823 1144 EAST MARKET STREET AKRON, OH 44316-0001			PETERSON, KENNETH E	
			ART UNIT	PAPER NUMBER
			3724	
DATE MAILED: 03/19/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/650,348	DOWNING, DANIEL RAY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenneth Peterson	3724	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the paper filed 02 feb 09.
2. ☒ The allowed claim(s) is/are 2,3,22 and 37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date ____     | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other ____.   |

1. Applicant's movie cd received in August of '07 has been cleared for viewing, and Examiner has viewed it.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with June Rickey on 12 March 09.

Firstly, a history of amendments to the specification and drawings;

The amendments to the specification filed 28 August 03 have been entered.

The amendments to the specification filed 14 June 04 are a duplicate of the 28 Aug 03 amendment and will be ignored.

The amendments to the specification filed 04 October 04 have been entered.

The amendments to the specification filed 27 August 07 will not be entered, as this subject matter will be dealt with in the below Examiner's amendment.

The amendments to the specification filed 03 March 08 will not be entered, as figure 7 has been retained.

The amendments to the drawings filed 27 August 07 have been entered. It has been determined that they do not constitute new matter.

The amendments to the drawings filed 31 October 07 will not be entered, since figure 7 has been retained.

The application has been amended as follows:

On line 3 of page 1 of the specification, as amended 04 October 04, after "09/874,766", the following has been inserted --, now patent number 6,755,105--.

On line 6 of paragraph 0013, " $\theta$  relative to the strip cutting path" has been changed to -- $\alpha$  relative to a first anvil surface--.

Paragraph 0014 has been changed as follows;

[0014] The step of supporting the strip may further include supporting the strip on a horizontal support surface ~~at an angle  $\theta_1$  less than the skive angle  $\alpha$~~  on one side of the cutting path and at an angle  $\theta_2$  greater than or equal to the skive angle  $\alpha$  on the opposite side of the cutting path. This causes the location of the impacted cord to occur approximately at the location wherein the supporting angle changes ~~from  $\theta_1$  to  $\theta_2$~~ .

On line 4 of paragraph 0015,  $\theta_1$  was changed to  $\theta_2$  in the amendment filed 28 August 03, and has now been changed to just -- $\theta$ --.

Paragraph 0017 has been changed as follows;

[0018] An apparatus for cutting segments from a strip of multi-layered elastomeric material containing reinforcing cords, the cords being substantially parallel and more or less oriented in the direction of the cut path, is described by the following features. A cutting element for cutting the strip to form cut ends has a cutting edge oriented to cut along a line 3, the line 3 being tangent to one or more cords and inclined at a desired skive angle  $\alpha$ , ~~and~~ relative to a means for supporting the strip along the cutting path, the means for supporting the strip having a first horizontal surface ~~oriented at an angle  $\theta_1$~~

Art Unit: 3724

~~less than the skive angle  $\alpha$~~ , and a second surface oriented at an angle  $\theta_2$  relative to the first surface,  $\theta$  being greater than or equal to the skive angle  $\alpha$ , and a means for restraining the strip against the means for supporting, the means for restraining the strip preferably lying ahead of the cutting element, and being moveable. The apparatus further has a means for moving both the cutting element and the means for restraining during the cutting of the strip. In one embodiment, the apparatus has the cutting element having a cutting edge inclined at an acute angle  $\beta$  relative to the width of the strip. The cutting edge when oriented as described initiates cutting on the surface furthest away from the means for supporting the strip. The skive angle  $\alpha$  is normally set about  $10^\circ$  or less relative to the first support surface, forming a cut path adjacent to one or more cords of the strip being cut. While the means for supporting the strip has two surfaces inclined an angle  $\theta$ , at angles  $\theta_1$  and  $\theta_2$  respectively,  $\theta_1$  is preferably set about  $2^\circ$  ~~less than the skive angle  $\alpha$~~ , the angle  $\theta_2$  is about  $2^\circ$  ~~more than the skive angle  $\alpha$~~ . In one embodiment the skive angle  $\alpha$  is set to about  $8^\circ$ .

Paragraph 0043 has been changed as follows;

[0043] As shown, the cutting element (120) is an ultrasonic blade. The ultrasonic blade initiates cutting to one side of the elastomeric strip (1) while the strip is supported on a supporting means (110). The supporting means (110) is preferably an anvil that has an outer surface adjacent to the cord reinforced tire component. This outer surface preferably has a first horizontal surface (111) ~~inclined at the angle of  $\alpha$  relative to a lower surface (122) of the blade~~ an angle of  $\theta_1$ ,  $\theta_1$  being ~~less than the skive angle  $\alpha$~~ . A second surface (112) is provided wherein the second surface (112) is inclined at an

Art Unit: 3724

angle  $\theta_2$ ,  $\theta_2$  being at an angle relative to the first surface equal to or greater than the skive angle  $\alpha$ . As illustrated, the cord reinforced tire component (20) is adjacent to the surfaces (111, 112). As can be seen, the ultrasonic blade (120) is positioned at a slight distance (d) spaced above the anvil (110). That distance creates a gap (d) of approximately 0.0030 inch. This gap (d) is sufficient to allow the cord reinforced tire component (20) to pass under the ultrasonic blade (120) during the cutting procedure.

On line 3 of paragraph 0044, “prior to meeting with the cord reinforced component (20). The” has been changed to --. Shortly after initial contact, the impact of the blade causes the cord reinforced layer to lift away from the second surface (112), at which point the--.

On lines 1 and 2 of paragraph 0047, “an angle  $\theta_1$  at one surface (111) to angle  $\theta_2$  at” has been changed to –the first surface (111) by angle  $\theta$  to--.

On line 7 of paragraph 0047, “ $\theta_2$ ” has been changed to –  $\theta$ --.

In paragraph 0048, the first sentence (With reference.....second angle  $\theta_2$ ) has been deleted.

Claims 1,4,5 and 20 have been deleted.

On line 1 of claim 2, “1” has been changed to –37--.

On line 1 of claim 3, “1” has been changed to –37--.

On line 1 of claim 22, “1” has been changed to –37--.



Art Unit: 3724

Claim 37 has been changed as follows;

37. (previously presented) A method of cutting a strip of elastomeric material into segments of a desired length, the strip having a width W, the strip being formed of a plurality of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising:

providing an anvil having a first ~~angled~~ surface, and a second ~~angled~~ surface, there being a first angle between the first and second surfaces, wherein a transition point is located at the intersection of the first ~~angled~~ surface and the second ~~angled~~ surface;

moving a cutting device into cutting engagement of the strip while supporting the strip on said anvil;

positioning the cutting edge of the cutting device at a skive angle less than 10 degrees relative to the first surface, said skive angle being substantially equal to said first angle, said positioning being ~~strip and~~ at a gap distance (d) above the transition point and above the second surface of the anvil, wherein the gap distance (d) is slightly less than or equal to the thickness of the cord reinforced component;

cutting through the entire strip in a single cutting step while maintaining the gap distance (d) and without cutting the cords, and forming a segment.

Art Unit: 3724

3. The following changes to the drawings have been approved by the examiner and agreed upon by applicant:

In figures 5A,5B and 5C, as amended on 27 August 07, the symbols  $\theta_1$  and  $\theta_2$  will be deleted.

On the right hand side of one of figures 5A,5B or 5C, angle lines will be extended from the surfaces 111 and 112 and the angle between them will be labeled as  $\theta$ .

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Peterson whose telephone number is (571)272-4512. The examiner can normally be reached on Monday-Thursday, 7:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571)272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth Peterson/  
Primary Examiner, Art Unit 3724